REMARKS

Claim Rejections Under 35 U.S.C. § 101

Claims 1-18 stand rejected under 35 U.S.C. § 101. Independent claim 1 has been amended to positively recite the particular machine to which the claim is tied. Claims 19-44 have been cancelled. Claims 2-18 depend (directly or indirectly) from claim 1, and therefore, Applicant believes that each of claims 1-18 are statutory under 35 U.S.C. § 101.

Claim Rejections Under 35 U.S.C. § 112

Claims 2-4, 7-12, and 18 stand rejected under 35 U.S.C. § 112 as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 2 and 18 have been amended to clarify that geocodes associated with the first and second characteristics are spatially near, as requested by the Examiner. Applicant therefore believes that claims 2 and 18 as well as claims 3-4 and 7-12, which depend from claim 2, are definite under 35 U.S.C. § 112.

Claim Rejections Under 35 U.S.C. § 103

Claims 1-18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Publication No. 2002/0019699 ("McCarty") in view of U.S. Publication No. 2004/0183672 ("Krishan"). Applicant respectfully requests reconsideration since the proposed combination of McCarty and Krishan, assuming *arguendo* that the proposed combination is proper, fails to teach each feature required by the combination of features presented in claim 1 to one of ordinary skill in the art.

For instance, claim 1 is directed to a method for ensuring accurate geocoding of an input location in an asset tracking system. As explained on pages 20-23 of the specification, the claimed invention involves ensuring that an input location is accurately geocoded before a geocode of the input location is forwarded to an asset (e.g., fire truck or police car) for response to the input location. This process increases the likelihood that the response will be directed to the correct location. Specifically, claim 1 requires receiving a first characteristic of an input location and at least one other characteristic of the input location. As explained in paragraph [0064] of the specification, these characteristics may include, for example, a street address, a city, a zip code, a county, a state, a phone number, a coordinate location, or a set of cross streets

associated with the input location. Claim 1 further requires generating a first geocode for the first characteristic and an additional geocode for at least one of the other characteristics. The first geocode is then compared with at least one of the additional geocodes. Based on that comparison, a determination is made regarding whether the first characteristic and one of the other characteristics identify a same location before a geocode of that same location is sent to one or more assets.

In one example discussed on pages 27-28 of the specification, a citizen in the town awakes to the fire alarm and calls the fire department. A 911 operator answers the call and takes the citizen's street address, 133 Main Street, and enters it into an address field 502 of a GIS system input sheet 500, as shown in Figure 5. The GIS system determines all variants of the word "main" and maps two locations having street names "Main" and "Mane" on a GIS map 600, shown in Figure 6. At this point, there is a 50% level of confidence that a geocode of either location will accurately designate the citizen's home. This translates to a 50% level of confidence that a dispatched fire engine will be sent to the correct address. As a result, the GIS system seeks a second descriptive characteristic for use in accurately geocoding the citizen's location. For instance, the GIS system may employ caller ID to obtain the citizen's area code and phone number and enter them into a phone number field 512 of the input sheet 500, shown in Figure 5. While an area code 612 (Figure 6) includes both the "Main" and "Mane" addresses, the center of the area code is closer to the "Main" address. This additional characteristic raises the level of confidence to 55%, but the GIS system realizes that even further information is required to reach a threshold accuracy of 80%. Thus, the system prompts the 911 operator for an additional descriptive characteristic. The citizen provides the five digit zip code of the home, "11011," and the operator enters the zip code into the zip code field 506, shown in Figure 5. The GIS system maps the zip code in the GIS map of Figure 6, which shows that the zip code covers area 610. Only the "Main" address is located within the zip code area 610, and therefore, the level of confidence that the "Main" address is correct increases to 90%, which exceeds the 80% threshold. Thus, the GIS system identifies and marks the 133 Main address as the appropriate location to which to respond and alerts the closest fire engine accordingly.

McCarty discloses a geographical information system for geographically locating potential customers and/or facilities relative to existing facilities and/or infrastructure for retail, wholesale, commercial, utilities, or other business purposes. Specifically, the system includes an address validation and geocode module 217. McCarty, Figure 2. The validation and geocode

module 217 receives a fully defined input address (e.g., city/state/zip code) and validates it by comparing the input address with address ranges within the United States Postal Service ("USPS") address ZIP+4 database. If the database contains an exact match, the module 217 outputs a "validated" address that is in standard format according to the USPS address ZIP+4 database. The module 217 then geocodes the validated address on a rooftop level of precision, returning positional information (e.g., latitude and longitude coordinates, cartesian coordinates, spherical coordinates, polar coordinates) to a web server 103. McCarty, Paragraph [0077] and [0079]-[0080]; Figures 2 and 5. If the address fails validation (i.e., the USPS database does not contain an exact match), the module 217 geocodes at the ZIP-9 level or the ZIP-5 level depending on the closest address match available and taking into account useful parameters within the user's particular industry (e.g., the center of the ZIP code area for a utility company, the center of population concentration for the ZIP code for a retail outlet). McCarty, Paragraphs [0079]-[0080]. The user then chooses one or more of a number of selection criteria of interest within the particular industry, such as, for example a rate center, wire center, and/or particular telecommunication service provider switch in the telecommunications industry, demographics of the region in the sales industry, and regional distribution channels in the manufacturing industry. McCarty, Paragraphs [0081]-[0082]; Figure 5. Using the validated address and the selected criteria, the system returns either a map or text reflecting the locations of the various selection criteria in relation to the validated address. McCarty, Paragraphs [0083]-[00087]; Figures 6A-B.

Contrasting the requirements of claim 1, McCarty does not disclose generating a first geocode for a first characteristic of an input location (e.g., a street address) provided to a GIS system and an additional geocode for at least one other characteristic of the input location (e.g., a nearby intersection) provided to the GIS system. McCarty also fails to disclose comparing the first geocode to at least one of the additional geocodes to determine if the first characteristic and at least one of the other characteristics identify a same location. As discussed above, McCarty discloses generating a single geocode that corresponds to a "validated" input address and then comparing that single geocode to the relative geographic location(s) of one or more sites that are of interest within the user's industry (e.g., distribution channels, telecommunications switches, telecommunications rate centers). Notably, the input address is not "validated" by comparing two or more geocodes associated with descriptive characteristics of the input address, but by simply verifying the fully defined input address via the ZIP+4 database maintained by the U.S. Postal Service. McCarty provides a map of "push pin" distances between well-defined locations

of interest. It does not determine an accurate geocode for an input location based on incomplete descriptors/characteristics for that location.

Krishan does not overcome these failings. Krishan teaches an asset tracking system that tracks the movement of a portable object (e.g., computer, camera, camcorder, bicycle, scooter, motorcycle, piece of luggage, handbag, backpack) via an attached GPS tracking device. Krishan, Abstract; Paragraphs [0009]-[0011]. In this regard, Krishan does not teach any manner of geocoding in connection with an input address.

Claim 1 also requires the step of allowing a geocode of the same location (i.e., the location identified by the first characteristic and at least one of the other characteristics) to be sent to one or more assets. While the Examiner failed to address this limitation in the Office Action, Applicant notes that neither McCarty nor Krishan teach this element. First, McCarty does not involve assets in any capacity. The single geocode associated with the validated input address is generated by and retained at the validation and geocode module 217 for the user's consideration and analysis. As discussed above, the user may use this geocode to gauge the relative locations of various business sites of interest and the user's verified address (i.e., the user sees that its retail store is within a few miles of several distribution centers and uses that information to design its distribution chain). The geocode is never sent to an external device of any kind.

Krishan also fails to teach this limitation because, as discussed above, the purpose of Krishan is to track portable objects or assets. Thus, Krishan teaches obtaining location information for a portable object and sending it back to a centralized monitoring station 32. Krishan, Figure 3; Paragraph [0022]-[0023]. In this regard, Krishan teaches the opposite of what is required by claim 1. Specifically, rather than sending a geocode *for* a same location *to* an asset, as required by claim 1, Krishan teaches sending a geographical location *for* an asset *to* a central monitoring station. Indeed neither McCarty nor Krishan involve the concept of a geocode for a same location that accurately identifies an input location.

Further, as the Examiner is aware, a proposed modification cannot render the prior art unsatisfactory for its intended purpose or change the principle of operation of a reference. See MPEP § 2143.01. Here, it is unclear how McCarty and Krishan could be combined without modifying or destroying the intended function of one or both of these references. Specifically, if the asset tracking capability of Krishan were incorporated into the address presentation system of McCarty, it is unclear how the McCarty system would operate because it is configured to map

distances between fixed locations, and not to track moving targets relative to each other or to a fixed location.

For these reasons, the proposed combination of McCarty and Krishan fails to teach each limitation required by claim 1. Thus, Applicant believes that claim 1 is patentable over the combination of McCarty and Krishan and respectfully requests that the Examiner withdraw the rejection and allow the claim. Further, claims 2-18 depend (directly or indirectly) from claim 1, and Applicant believes these claims are allowable for at least the reasons provided for claim 1.

In addition, independent grounds support the patentability of amended claim 2. As amended, claim 2 requires the determining step of claim 1 to include verifying that the first geocode and at least one of the additional geocodes are spatially near. Neither McCarty nor Krishan teach this step. As discussed above, McCarthy teaches determining whether a single geocode associated with the input address is spatially near various business sites of interest (e.g., telecommunications switch, distribution routes), not whether two separate geocodes, both for characteristics associated with an input location, are spatially near. Indeed, McCarthy fails to teach the generation of more than one geocode for the input address, let alone the comparison of those geocodes to determine whether the geocodes are spatially near. Krishan does not remedy this failure because, as discussed above, Krishan involves determining a location for a portable object rather than determining an accurate geocode for an input location.

For these reasons, Applicant believes that claim 2 is patentable over the proposed combination of McCarty and Krishan, even assuming that the combination is proper. Further, claims 3-4 and 7-12 depend from claim 2 and Applicant believes that these claims are allowable for at least the same reasons as provided for claim 1.

Conclusions

Based upon the foregoing, Applicant believes that all pending claims are in condition for allowance and such disposition is respectfully requested. In the event that a telephone conversation would further prosecution and/or expedite allowance, the Examiner is invited to contact the undersigned.

Respectfully submitted,

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